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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,547	09/28/2006	Vladimir Bykovnikov	P22709	1922

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EXAMINER

NGO, CHUONG A

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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07/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/594,547

Applicant(s)

BYKOVNIKOV, VLADIMIR

Examiner

CHUONG A. NGO

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 2, 10, 11, 17-27 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6, 9, 12, 15, 28 and 30-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. This action is in response to the communication mailed on February 12, 2009, applicant has submitted an Amendment, Filed on May 18, 2009.
2. Claims 1-34 are pending, with claims 1, 3-4, 6, 9, 12, 15, 28, and 30 amended, claims 31-34 added, and claims 2, 10-11, 17-27 and 29 cancelled without prejudice or disclaimer by the present amendment.
3. Applicant's arguments with respect to claims 1, 3-4, 6, 9, 12, 15, 28, and 30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-4, 6, 9, 12, 15, 28, and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5784368 (hereinafter Weigand) in view of US Patent Application Publication 20010014083 (hereinafter Pulkkinen).

Regarding claims 1, 9, 28, Weigand discloses "A computer implemented" (**see Fig. 2**) method comprising:

Weigand discloses "acquiring information about interfering base stations in a vicinity of a base station of interest (BSOI)" (**see abstract**,

method provides synchronous communication in a communication environment (102) wherein multiple base stations are adapted to operate on the same frequencies. In particular, the base stations which operate within range of one another must be coordinated to minimize interference with other base stations which may otherwise operate independently); and

Weigand discloses "choosing one of said interfering base stations as a master base station for said BSOI" **(see abstract, and Fig. 5)**, "wherein a master base station is a base station to which another base station is to synchronize" **(see col. 2, lines 34-37, synchronous communication in a communication environment wherein multiple base stations);**

Weigand discloses "wherein choosing one of said interfering base stations as a master base station includes" **(see col. 2, lines 43-45):**

Weigand discloses "when said interfering base stations are from sync groups" **(see col. 4, lines 56-65 and Fig. 5, 6, A1-A5 is one group and B1-B3 is other groups)**, "selecting a sync group from said sync groups to be a master sync group, wherein a sync group is a group of base stations that are currently synchronized with one another" **(see col. 5, lines 48-66);** "when said interfering base stations are all from a common sync group, identifying said common sync group as said master sync group" **(see col. 10, lines 12-27);** and "when said master sync group includes at least one master base station that is also one of said

interfering base stations and that has a received signal strength within said BSOI that is adequate to perform accurate synchronization, assigning one of said at least one master base station as a master base station of said BSOI" (see col. 5, lines 48-66, see C1).

Although, Weigand does not explicitly disclose "multiple sync groups". However, attention is directed to Pulkkinen, which teaches "multiple sync groups" (see paragraph [0052], [0053], Fig. 3, 5, 7, and 8, Pulkkinen discusses multiple sync groups as serves a plurality of hops).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Weigand invention, and have multiple sync groups, as taught by Pulkkinen, thereby providing a concept of a single site which serves a plurality of hops, as discussed by Pulkkinen, (see paragraphs [0008], [0009]).

Regarding claim 4, 13, 14, 30, 31 Weigand discloses most "interfering base and master base station and synchronizations" and all subject matter of the claimed invention concept except Weigand does not explicitly teach "selecting a base station from said master sync group that is one of said interfering base stations as the master base station of said BSOI". However, Pulkkinen teaches selecting master sync group (see paragraph 26 and 53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Weigand invention as how multi sync as discussed by Pulkkinen (see paragraph 25).

Regarding claims 5, 16, 32 Weigand teaches "delivering an ID of said selected master base station and said new ranging rule to said BSOI and said selected master base station" (see Fig. 3, Col. 3, lines 46-67).

Regarding claims 6, 12, 15, 33, Weigand discloses most "interfering base and master base station and synchronizations" and all subject matter of the claimed invention concept except Weigand does not explicitly teach "multiple sync groups or sync group". However, Pulkkinen teaches (see abstract, where Pulkkinen discusses sync group. Also see Fig. 3, 5, 7, 8 and claims 1 and 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was make to modify the Weigand invention, and have interfering base and master base station and synchronizations, as taught by Pulkkinen, thereby providing a concept of a single site which serves a plurality of hops, as discussed by Pulkkinen, (see paragraphs [0008], [0009]).

Regarding claims 7, 34 Weigand discloses most "interfering base and master base station and synchronizations" and all subject matter of the claimed invention concept except Weigand does not explicitly teach "master/slave level with each synchronization chain". However, Pulkkinen teaches master/slave synchronization (see paragraph 49-53 and Fig. 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was make to modify the Weigand invention, and have interfering base and master base station and synchronizations,

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as taught by Pulkkinen, thereby providing a concept of a single site which serves a plurality of hops, as discussed by Pulkkinen, (see paragraphs [0008], [0009]).

Regarding claim 8 have the limitations similar to those treated in the above rejection, and are met by the references as discussed in claim 1.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5784368 (hereinafter Weigand) in view of US Patent Application Publication 20010014083 (hereinafter Pulkkinen) and further in view of US Patent Application Publication 20030147362 (hereinafter Dick).

Regarding claim 3, Weigand and Pulkkinen discloses all subject matter of the claimed invention concept except Weigand and Pulkkinen do not explicitly teach "delivering an ID of said assigned master base station and a corresponding ranging rule to said BSOI". However, Dick teaches assigned master base station (see paragraph 22. Also see Fig. 4.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Weigand and Pulkkinen inventions to provide the technique use to improve synchronization from each base station as taught by Dick (see paragraph 6).

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

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See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG A. NGO whose telephone number is 571-270-7264. The examiner can normally be reached on Monday through Thursday 6:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHUONG A NGO/
Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617